

New Freshwater Decapod Crustaceans from the Malay Peninsula

By DR. JEAN ROUX (*Basle Museum of Natural History*)

PLATE IV

Recently the Basle Museum of Natural History received a small collection of fresh water Crustaceans from the Malay Peninsula for identification. Among this material, 2 species and 1 subspecies are apparently undescribed; they are here recorded under the following names:

Potamon (Potamiscus) chaseni n. sp.

Potamon (Potamiscus) tweedei n. sp.

Palæmon (Macrobrachium) pilimanus malayanus n. subsp.

We wish to express our best thanks to Mr. F. N. Chasen, Director of the Raffles Museum, Singapore, who has given us the opportunity of studying this interesting material, and has allowed us to retain some of the specimens for the collections of the Basle Museum.

Potamon (Potamiscus) chaseni n. sp.

(Text Fig. 1; Pl. IV, Fig. 1, 2)

Locality.—Cameron's Highlands, Malay Peninsula.

This new species appears to be related to *Potamon tumidulum* Alcock but belongs to the subgenus *Potamiscus* in having only a small vestige of a flagellum to the exopodite of the external maxillipeds.

Carapace convex fore and aft; length four fifths breadth, depth more than half the middle length. The cervical groove is well marked in all its course and breaks the post-orbital crest at a point immediately behind the external orbital angle. The mesogastric and epigastric regions are distinct. The epibranchial regions are subdivided by two grooves as in *Pot. alcockianum* Kemp; one groove runs obliquely backwards from the outer limit of the mesogastric area, the other more or less parallel with the cervical groove. The anterior part of the carapace is not coarsely rugose. The epibranchial regions only are decorated with rounded, not very salient rugæ. The central parts of the gastric region are punctate. The fine striæ of the postero-lateral border are very slightly developed. The posterior breadth of the carapace is half the distance between the extraorbital angles.

The epigastric crest forms a common curve with the postorbital; the epigastric lobes are tumid and separated from each other by a deep and very narrow furrow; they are not in advance of the posterior border of the orbits. The postorbital crests are well defined in their whole course and transversely rugulose; at the points where they are cut by the cervical groove, they tend forwards in a straight line towards the bases of the epibranchial teeth and are also here very well defined and rugulose.

The front is moderately declivous; its anterior border is not crenulate and is broadly bilobed in dorsal view; its breadth is equal to $\frac{1}{3}$ of the length of the carapace. The frontal surface is finely granulose throughout, the postorbital regions are concave and also minutely granulated.

The external orbital angle is not developed into a tooth, it is separated by a very small gap from the lower border of the orbit; the orbital borders are granulose. The antero-lateral borders are about as long as the postero-lateral; they are strongly curved and granulate and extend backwards to the level of the

posterior limit of the mesogastric area. The epibranchial tooth is not more developed than the surrounding granulae of the borders.

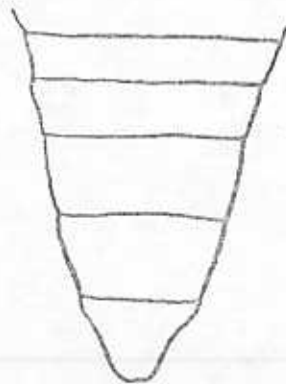


Fig. 1. *Potamon (Potamiscus) chaseni*, n. sp.
♂ abdomen, $\times 3$.

In the male the length of the sixth abdominal segment is a little less than half the basal breadth. The seventh segment is about as long as the preceding one, it is $1/3$ broader than long.

The merus of the third maxilliped is as broad as long; the longitudinal groove on the ischium is well defined and placed a little nearer to the inner than to the outer border. The exopodite bears only a vestigial flagellum.

The right cheliped only is present. The edges of the merus are crenulate, without a tooth near the distal end of the upper border; its surface is nearly smooth. The carpus bears a coarse spine with a large base; on the inner side of this joint are two small denticles. Palm smooth on the outer surface except for some coarse punctations, not much swollen. Fingers not gaping, as long as the palm, pitted and furnished with longitudinal lines; inner border with about 20 small teeth.

Walking legs moderate, furnished with short bristles. In the foremost posterior pair, which are 4 cent. long, the merus is $2\frac{3}{4}$ as long as broad, without any spine near the proximal end on the upper border; the dactylus is a little longer than the propodus.

In the well defined cervical groove, this species agrees with *P. tumidulum* Alck. but differs as follows: the carapace is more vaulted, the postorbital crests are well defined on their whole course, the epibranchial tooth is not distinct, the last abdominal segment in the male is distinctly broader than long.

Potamon (Potamiscus) tweedei n. sp.

(Text Fig. 2; Pl. IV, Fig. 3, 4).

Locality.—Maxwells Hill, Perak. 3000', 2♂♂.

This species is very nearly related to the preceding form with which it agrees in the proportions of the carapace and of the limbs.

The differences noticed are as follows:

The outwardly curved lateral portion of the cervical groove is a shallow depression which does not cut the post-orbital crest. The epigastric crests are slightly in advance of the post-orbital, reaching the level of the upper orbital margin. They are rugulose, tending obliquely backwards; they are separated from the post-orbital crest by a distinct furrow. The post-orbital crests are not rugulose and do not run obliquely backwards, but form a sharp-edged, transverse line on each side of the epigastric crests. They are continued up to a point where the cervical groove would cut them, if it were defined anteriorly, and are afterwards gently curved forwards in the vicinity of the epibranchial tooth, forming here 2 or 3 more or less well defined rugosities.

The anterior lobes of the front are less curved and the frontal surface less tuberculate; the post-orbital area is quite smooth.

The granulations of the antero-lateral border are finer. The side-walls of the carapace are quite smooth and the boundaries between these regions devoid of granules.

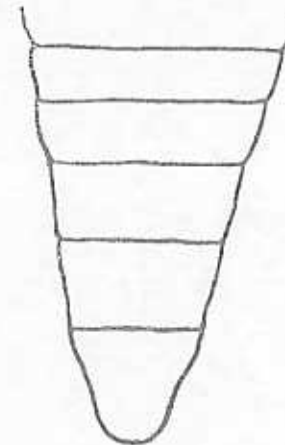


Fig. 2. *Potamon (Potamiscus) tweedei*, n. sp.
♂ abdomen, $\times 3$.

The height of the 6th abdominal segment of the ♂ is a little more than half of the proximal breadth; the last segment is longer than the 6th, its length about $\frac{4}{5}$ of its breadth.

The outer surfaces of the carpus and palm of the chelipeds are more rugulose.

This species is named after Mr. M. W. F. Tweedie, Officiating Curator at the Raffles Museum.

Palæmon (Macrobromium) *pilimanus malayanus* n. subsp.

Locality.—Lasah, Plus Valley, East Perak, March, 1933.; numerous specimens. This new subspecies is undoubtedly derived from the typical form of *Pal. pilimanus* de Man, which was found at the same locality.

De Man¹ has already pointed out that *Pal. pilimanus* is a very variable species. He described the var. *leptodactylus* for Javanese specimens which were collected with the typical form at Buitenzorg. These specimens have a more elongated carpus in the II. chelipedes than in the true *pilimanus*.

Amongst the numerous specimens from Lasah, we also were able to distinguish, besides normal individuals, others with the carpus elongated, showing also different characters in the rostrum and in the I. chelipeds. They have the same dimensions as the typical *Pal. pilimanus* (tot. length 38–40 mm.). The rostrum is horizontal, being a little longer than the antennular peduncles but shorter than the antennal scale; it is not convex in the supra-orbital region and seems not so high as in the typical form. The teeth are less numerous, there being 8–10 on the upper border, the 3 proximal ones on the cephalothorax; on the lower margin 3–4 teeth. The telson has the typical form.

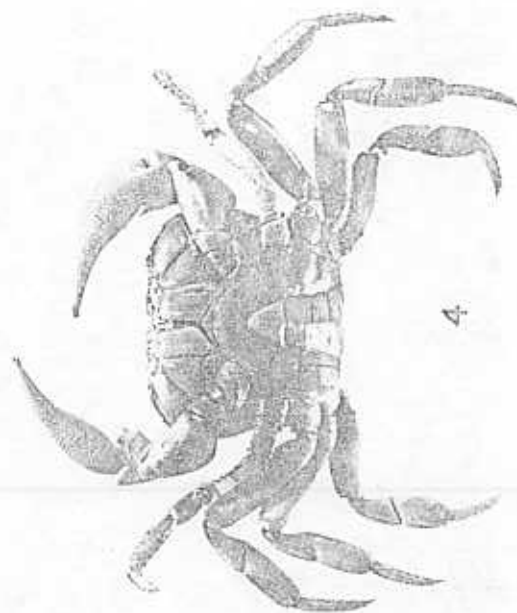
The I. chelipeds are shorter than in the true *Pal. pilimanus*, but their carpus is projected beyond the antennal scale.

The II. chelipeds are very different in shape and unequal in length, especially in the ♂. The carpus is elongated, remaining, however, a little shorter than the merus. The chela has the same form as in the typical specimens from Lasah, the palm being a little longer than the fingers. The merus and carpus are provided with short spinules; on the palm these spinules are very few in number. This segment bears a soft fur which reaches its maximum length on the fingers. In the larger cheliped the palm is twice as broad as the distal part of the carpus. The

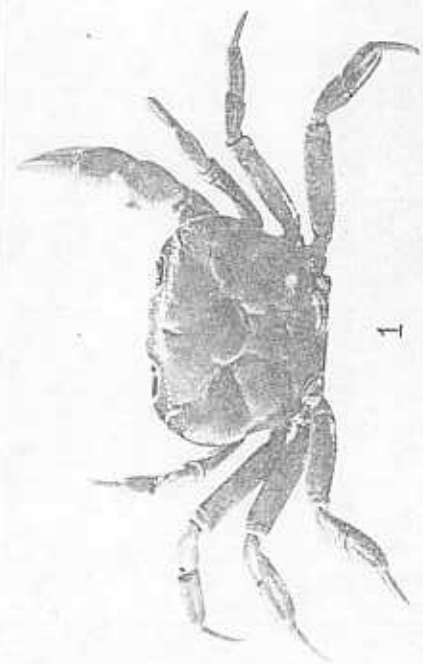
¹. In M. Weber: Zoolog Ergebnisse einer Reise in Niederl. Ost-Indien, Bd. II, S. 472, 473.



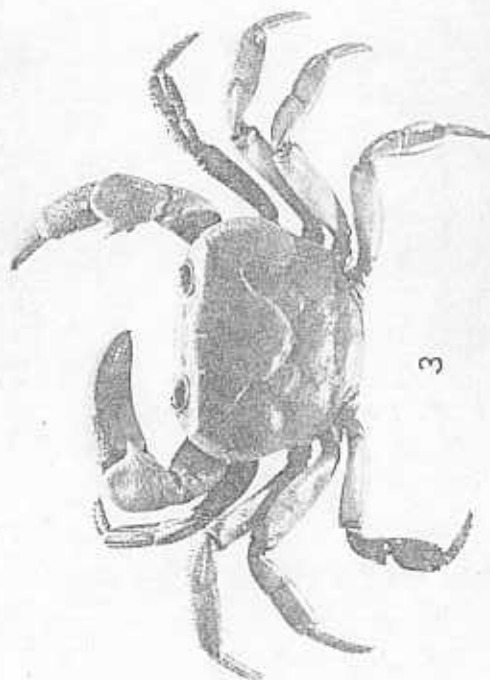
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New Crustacea (*Potamon*) from the Malay Peninsula.

NOTES ON STOMATOPODA IN THE RAFFLES MUSEUM

inner margin of the fingers is provided with 2 rounded teeth only, the basal one being preceded by 2 small tubercles. In the smaller cheliped, the palm is nearly as broad as the carpus, so that the general shape is as in a *Parapalaemon*; the fingers are armed with 2 small teeth. The whole segment bears long, flexible setae.

In the ♀ specimens, the difference in the shape of the chelipeds is less marked than in the ♂, and palm of the great cheliped is not so broad.

The ova are spherical, large and few in number.

EXPLANATION OF PLATE IV

- Fig. 1. *Potamon (Potamiscus) chaseni*, n. sp. Dorsal view, ×1.
 Fig. 2. *Potamon (Potamiscus) chaseni*, n. sp. Ventral view, ×1.
 Fig. 3. *Potamon (Potamiscus) tweedei*, n. sp. Dorsal view, ×1.
 Fig. 4. *Potamon (Potamiscus) tweedei*, n. sp. Ventral view, ×1.

Notes on Stomatopoda in the Raffles Museum,

By M. W. F. TWEEDIE, M.A.

The Stomatopoda are represented in the Raffles Museum by fourteen species, of which eleven belong to the genus *Squilla* and the remaining three to the genera *Lysiosquilla*, *Pseudo-squilla* and *Gonodactylus*.

The greater part of the material has been collected during the last two years around Singapore Island and in the local fishmarkets. In addition to this, specimens of a number of species were obtained by exchange from the Indian Museum, Calcutta, in 1921, and small collections were made in the South Natuna Islands in 1929 by Mr. P. M. de Fontaine and in Christmas Island, Indian Ocean, in 1932 by the writer. Also the museum is indebted to Mr. W. Birtwistle, Officer-in-charge, Fisheries Department, S. S. and F. M. S., for the gift of a specimen of the rare *Squilla decorata* (Wood-Mason) from Penang.

The richest collecting ground in Singapore is the stretch of shore from Siglap to Telok Kurau on the south coast of the Island.

